

United States Patent [19]
Walcerz et al.



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[54] **OPEN CHEST CARDIAC MASSAGE
SIMULATOR**

3,027,655 4/1962 Alderson 434/268
3,568,333 3/1971 Clark 434/265

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FOREIGN PATENT DOCUMENTS

2553214 4/1985 France 434/265

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[57] **ABSTRACT**

A Simulator of the cardio-vascular system is provided for use in open chest cardiac massage (OCCM) resuscitation technique instruction. A molded model of a heart is housed in a thoracic mannequin with synthetic skin pulled aside revealing the cardiac muscle as in a clinical situation. A system of valves and tubes modeling blood vessels connects the heart to inlet and outlet reservoirs simulating venous and arterial input and output supported by an adjustable stand. This device provides tactile feedback to the practitioner and permits variations in flow rates and pressures to simulate various cardiac conditions.

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[52] **U.S. Cl.** **434/265**

[58] **Field of Search** 434/265, 262, 268, 272

[56] **References Cited**

U.S. PATENT DOCUMENTS

2,324,702 7/1943 Hoffmann et al. 434/272

2 Claims, 3 Drawing Sheets

